

### **Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

### **Listing of Claims:**

1. (currently amended) A wireless communication receiver, comprising:
  - (a) a processing unit that processes received signals and filters the processed signals in an analog domain to output filtered analog signals;
  - (b) an analog-to-digital converter (ADC) that converts the filtered analog signals into digital signals; and
  - (c) a digital filter that filters the digital signals from the ADC and attenuates residual interferers in the digital signals by a predetermined amount, so as to allow relaxation of tolerable quantization noise generated by the ADC to a pre-defined level to thereby substantially reduce a dynamic range of the ADC, wherein the pre-defined level is higher than a level prescribed by the receiver's sensitivity;  
wherein the ADC has a word length corresponding to the reduced dynamic range.
2. (canceled)
3. (previously presented) The receiver of claim 1, wherein the pre-defined level of the quantization noise is maintained within a range, such that the total interference of the receiver is kept at a level not greater than an allowable level.
4. (previously presented) The receiver of claim 1, further comprising a demodulator that demodulates the filtered digital signals from the ADC to recover user data.
5. (currently amended) A method for use in a wireless communication receiver, the method comprising the steps of:
  - processing received signals;

filtering the processed signals in an analog domain to output filtered analog signals;

converting the filtered analog signals into digital signals; and

filtering the digital signals ~~in a digital domain~~ using a digital filter to attenuate residual interferers in the digital signals by a predetermined amount, so as to allow relaxation of tolerable quantization noise generated at the converting step to a pre-defined level to thereby substantially ~~reducing~~ reduce the number of quantization bits required at the converting step, wherein the pre-defined level is higher than a level prescribed by the receiver's sensitivity;

wherein the converting step converts the filtered analog signals into the digital signals with a corresponding reduced number of quantization bits.

6. (canceled)

7. (previously presented) The method of claim 5, wherein the pre-defined level is maintained within a range, such that the total interference of the receiver is kept at a level not greater than an allowable level.

8. (previously presented) The method of claim 5, further comprising a step of demodulating the filtered digital signals to recover user data.

9. (new) The receiver of claim 1, wherein the digital filter is a digital low-pass filter configured to attenuate out-of-band interferers.

10. (new) The receiver of claim 1, wherein the tolerable quantization noise of the ADC is relaxed to -90.24 in decibels (dB) with reference to one milliwatt (dBm), the dynamic range for the ADC is reduced to 26.24 dB, and the word length of the ADC is between 3 bits to 5 bits.